

**Method of Characterization of Surface Coating Containing Metallic flakes
and Device Used Therein****ABSTRACT**

The method of present invention and the device used therein is directed for characterizing unknown metallic flakes present in an existing coating on a substrate such that a matching metallic paint composition can be formulated and applied over the substrate to produce a metallic coating having characteristics, such as flop, that match the existing coating. The method includes directing a beam of light at a preset intensity towards a target portion of a target coating; directing a reflection of the portion to a photosensitive surface to capture a target image of the target portion; measuring characteristics of the unknown metallic flakes in the target image at said preset intensity; correlating the characteristics of the unknown metallic flakes in the target image to stored characteristics of known metallic flakes at that preset intensity to identify one or more the known metal flakes that match the characteristics of the unknown metallic flakes; and displaying the identified one or more known metal flakes that match the characteristics of the unknown metallic flakes. Once the characteristics are known, a formulator can then formulate a metallic paint that can be applied over the surface of a substrate, such as a repaired autobody, to produce a metallic coating that matches the remainder of the autobody.